

REMARKS

The Examiner's Action mailed on November 15, 2007, has been received and its contents carefully considered.

In this Amendment, Applicant has amended claims 9, 17 and 18, and canceled claims 10-14. Claims 9, 17 and 18 have been amended to add features that are supported by the specification, at page 9, line 16, through page 11, line 1, and Figure 3. Claims 9, 17 and 18 are the independent claims. Claims 9 and 15-18 remain pending in the application. For at least the following reasons, it is submitted that this application is in condition for allowance.

The Examiner's Action has rejected claims 9 and 15-18 as being anticipated by *Lawrie et al.* (USP 5,993,350) (hereafter simply *Lawrie*). It is submitted that these claims are not anticipated by the cited reference for at least the following reasons.

It is well settled that a reference may anticipate a claim within the purview of 35 U.S.C. § 102 only if all the features and all the relationships recited in the claim are taught by the referenced structure either by clear disclosure or under the principle of inherency.

Independent claim 9 is directed to a gearshift control system that includes determining means for determining whether or not the gear shifting request of a transmission exists, clutch disconnection means, mode selecting means, and gear setting means. Amended claim 9 recites that gear positions of the transmission includes a vehicle-starting gear position, and the determining means determines if the gear shifting request is a request to the vehicle-starting gear position, and if the request to the vehicle-starting gear position exists in a vehicle stationary state where the engine

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is running idle, the transmission is in the neutral position, and the clutch is connected.

Amended claim 9 further recites that, when the request to the vehicle-starting gear position exists in the vehicle stationary state, (1) the clutch disconnection means disconnects the clutch, (2) the mode selecting means operates the rotating electric machine in the power generating mode to decrease the rotational speed of the input shaft until the rotational speed of the input shaft reaches the region of the synchronizing rotational speed in the vicinity of a zero value after the clutch means disconnects the clutch, and (3) the gear setting means sets the gear position of the transmission from the neutral position to the vehicle-starting gear position when the rotational speed of the input shaft reaches the region of the synchronizing rotational speed in the vicinity of a zero value. These features of the invention eliminates the load to the synchronization mechanism of the transmission caused by the gear shifting at the vehicle start, and reduces the gear shifting time (see the specification, page 10, line 23, through page 11, line 1). These features are not disclosed or suggested by the cited reference.

Lawrie is directed to a powertrain system for a hybrid vehicle which comprises, *inter alia*, a transmission controller 50, a clutch motor 56, a motor controller 44, an xovr motor 52 and a select motor 54 (see *Lawrie*, Figure 2). The Examiner equates the transmission controller 50, the clutch motor 56, the shifter 66, the motor controller 44, and the combination of the motors 52 and 54 disclosed by *Lawrie* respectively with the determining means, the clutch disconnection means, the mode selecting means, and the gear setting means, as recited in claim 9.

However, the powertrain system disclosed by *Lawrie* does not include the vehicle-starting gear position as recited in amended claim 9.

In addition, *Lawrie* does not disclose or suggest that the transmission controller 50 determines if the gear shifting request is a request to the vehicle-starting gear position, and if the request to the vehicle-starting gear position exists in a vehicle stationary state where (1) the engine is running idle, (2) the transmission is in the neutral position, and (3) the clutch is connected, as would be required by amended claim 9.

Further, *Lawrie* does not disclose or suggest that, when the request to the vehicle-starting gear position exists in the vehicle stationary state, (1) the clutch motor 56 disconnects the clutch 16, (2) the motor controller 44 operates the electric motor 40 in the power generating mode to decrease the rotational speed of its input shaft until the rotational speed of the input shaft reaches the region of the synchronizing rotational speed in the vicinity of a zero value after the clutch motor 56 disconnects the clutch 16, and (3) combination of the motors 52 and 54 sets the gear position of the transmission 18 from the neutral position to the vehicle-starting gear position when the rotational speed of the input shaft reaches the region of the synchronizing rotational speed in the vicinity of a zero value, as recited in amended claim 9.

Accordingly, *Lawrie* does not disclose or suggest the determining means, the clutch disconnection means, the mode selecting means, and the gear setting means, as recited in claim 9. It is thus submitted that claim 9, and the claims that depend from claim 9, are clearly patentably distinguishable over the cited reference. Accordingly, it is requested that the rejection be withdrawn, and claims 9 and 15-16 be allowed.

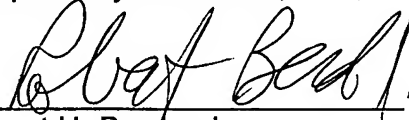
Independent claims 17 and 18 also recite the features, including determining of the request to the vehicle-starting gear position in the vehicle stationary state, and

subsequent clutch disconnection, operation of the rotating electric machine in the power generating mode until the shaft rotation speed reaches in the vicinity of zero, and setting to the vehicle-starting gear position, as similarly recited in claim 9. It is thus submitted that claims 17 and 18 are *prima facie* patentably distinguishable over the cited reference for at least the same reasons as independent claim 9, as well as for the additional features recited therein. Accordingly, it is requested that the rejection be withdrawn and claims 17 and 18 be allowed.

It is submitted that this application is in condition for allowance. Such action and the passing of this case to issue are requested. Should the Examiner feel that a conference would help to expedite the prosecution of the application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

Should any fees be required, the Commissioner is hereby authorized to charge such fees to our Deposit Account No. 18-0002, and advise us accordingly.

Respectfully submitted,



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